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REDUCING LIVESTOCK LOSSES

from

#315 *Arrowgrass*
POISONING

in the
Western States



PA-315

UNITED STATES DEPARTMENT OF AGRICULTURE

REDUCING LIVESTOCK LOSSES

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from

Arrowgrass
POISONING

The species of arrowgrass that most commonly poison livestock are *Triglochin maritima* and *Triglochin palustris*. They are perennial plants, and are widely distributed in marshy areas throughout the United States.

As long as the ground is moist, the plants are low in toxicity. In

dry periods when growth is stunted, the plants become most poisonous.

Sheep and cattle are affected by eating arrowgrass. The toxic substance in the plant is prussic, or hydrocyanic acid. Most of it is in the leaves. Animals may be poisoned if they eat large amounts of leaves in a short time.

Where and When It Grows

The plants grow best in soil covered with water. In such soil they may cover large areas. In moist

soil or near springs they sometimes grow in small patches. Arrowgrass starts growth in the spring.

How It Affects Livestock

How much arrowgrass does it take to cause poisoning or death in animals? This depends on the toxicity of the plants and the rate at which the plants are eaten. About

one-fiftieth of an ounce of prussic acid (from $\frac{1}{4}$ to 3 or more pounds of stunted arrowgrass) will kill a 600-pound animal. Death results from respiratory failure.

The following are symptoms of arrowgrass poisoning:

1. Nervousness
2. Abnormal breathing, either very rapid or slow and deep
3. Trembling or jerking movement of the muscles
4. Blue discoloration of the lining of the mouth
5. Spasms or convulsions continuing at short intervals until death



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Arrowgrass grows in clumps 6 to 18 inches tall. The leaves are basal, fleshy, dark green, grasslike, and half rounded. The flower stalks are slender and may reach a height of 3 to 5 feet. Small, green flowers are set close together on the upper portion of the stalk and appear early in the season. They later develop into golden-brown colored fruits.



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Arrowgrass grows best in soil that is covered with water; it is most poisonous during dry periods.

How To Reduce Livestock Losses

Livestock owners should avoid grazing animals in areas where growth of arrowgrass has been retarded by drought.

The action of prussic acid is so rapid that it is usually too late to treat an affected animal after the symptoms are recognized. Some sheep may be saved by having ready and injecting intraperitoneally 20-percent solutions of sodium nitrite and sodium thiosulfate. Sufficient

quantities of each solution should be injected to give an animal 1 gram of sodium nitrite (about 5 cc.) and 2 grams of sodium thiosulfate (about 10 cc.). Twice this amount should be given to cattle; it should be administered intravenously. *Note:* This treatment should be given under the direction of your local veterinarian.

Eradication of arrowgrass is impracticable.

Where To Obtain More Information

You can obtain more detailed information on arrowgrass poisoning by getting in touch with your county agricultural agent or by writing to your State agricultural

experiment station or to the U. S. Department of Agriculture. Consult your local veterinarian if you have any questions regarding affected animals.

Know Poisonous Plants • Reduce Livestock Losses

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